The intergenerational transmission of violent offending

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Chapter 6

The concentration of sex offenses within British and Dutch families

Abstract[16]

Prospectively collected data on the male family members of 397 British nuclear families and 140 Dutch extended families was used to examine the concentration of different types of sex offending within families. Kolmogorov-Smirnov tests showed that sex offending does not significantly concentrate within the British or Dutch nuclear families. However, sex offending, and hands-on offending in particular, significantly concentrate within the Dutch extended families. The results further showed that sexual offending is transmitted between family members, which partly explains the concentration of sex offending within families. This transmission of sexual offending is not mediated by sexual victimization. Moreover, persons with criminal and violent family members are at increased risk to become sex offenders, which suggests that the concentration of sex offending within families may also partly be mediated by the intergenerational transmission of serious and violent delinquency.

6.1 Introduction

It is well established in criminological research, that a small group of offenders is responsible for a large share of total crime (Fox & Tracy, 1988; Piquero, 2000). This offending pattern does not only appear within cohorts of individuals but in cohorts of families as well. Previous research shows that criminal behavior in general (Farrington, Barnes & Lambert, 1996; Farrington et al., 2001) and violent crime in particular (Van de Weijer, Bijleveld & Blokland, in press) is highly concentrated within families.

Little is known about the concentration of sexual offending within families, as, to our knowledge, no study has focused on this topic before. In this

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chapter we will use prospectively collected data on the male family members in 397 British nuclear families and 140 Dutch extended families to examine the concentration of sexual offending in families, as well as possible explanations for such a concentration. We will also examine whether the degree of concentration differs for different types of sex offenses.

In addition to the research indicating a concentration of crime within families, there is also empirical evidence of intergenerational transmission of crime, from father to son (e.g. Besemer, 2011; Bijleveld & Wijkman, 2009; Van de Weijer et al. in press), and intragenerational transmission of crime, between siblings (Farrington et al., 1996; Van de Rakt, Nieuwbeerta & Apel, 2009). This inter-, and intragenerational transmission of crime implies a concentration of crime within families, as multiple criminal family members are necessary for the transmission to occur. Studies that examined the intergenerational transmission of sex offenses have focused on the transmission of victimization rather than on the transmission of sexual offending (e.g. Avery, Hutchinson & Whitaker, 2002; Faller, 1989; Testa, Hoffman & Livingston, 2011). These studies show that children are at increased risk to be sexually abused if their parents were victims of (childhood) sexual abuse. For example, one pattern that illustrates this link are mothers, who have been sexually abused, who marry men who will later sexually abuse their/her child(ren) (Faller, 1989). Prior researches, however, do not estimate the risk of becoming a sex offender for those with a sexually abusive parent. On theoretical grounds, it can also be expected that children from sexually abusive parents are at increased risk to commit sexual crimes themselves even if these children themselves were not victimized, as they might have been otherwise exposed to their parent's deviant sexual behavior. Therefore, in this study, we will examine the transmission of sex offending instead of the transmission of victimization.

Because sex offenses include several types of behavior for which the intergenerational transmission might operate differently, different types of sexual crime will be analyzed (e.g. Gebhard et al., 1965). Previous research showed that exhibitionists, rapists and child abusers differed from each other in the degree and timing of recidivism (Blokland & Van der Geest, in press; Nieuwbeerta, Blokland & Bijleveld, 2003; De Vogel & de Ruiter, 2003) and treatment effectiveness (Alexander, 1999). In this chapter, the data allow us to examine

differences in the degree of concentration within families for hands-off, hands-on and sex offenses committed against victims aged under 16.

6.2 Theory

6.2.1 Concentration of sex offenses within families

As previous research shows that both general (Farrington et al., 1996; Farrington et al., 2001) and violent offending (Van de Weijer et al., in press) clusters in families, we hypothesize that sexual offending will be concentrated within families as well (Hypothesis 1a). We go on to discuss five possible explanations for such a concentration of sex offenses within families. As we detail below, some of these explanations might be more applicable for hands-on offending, particularly for sex offending against minors, and we thus expect these types of sex offending to be more concentrated within families than hands-off offending (Hypothesis 1b.)

6.2.2 Transmission of sex offenses within families

Several mechanisms may cause transmission of sexual offending between family members. Van Beek and Mulder (2002) argue that children who are exposed to pornography, sexual violence and abuse (including their own victimization) in their family are at increased risk to develop cognitive distortions. These cognitive distortions may imply rationalization and normalization of the abnormal sexual behaviors to which they were exposed. Such distortions facilitate deviant sexual behavior and decrease the step towards these children's own sexual offending. In a similar vein, Ward and Siegert (2002) argue that individuals who experience sexual abuse or are exposed to sexual material or activity at a young age and who do not receive appropriate feedback from their parents, family or others, can develop distorted sexual scripts. If distorted sexual scripts are developed, individuals may interpret deviant sexual behaviors as normative, which in turn lead to an increased risk of becoming a sex offender. Sexual offending might also be transmitted intergenerationally by social learning mechanisms, which posit that children learn and imitate a (deviant) behavioral repertoire from their parents or other relatives (Bandura, 1977; Burton, Miller & Shill, 2002; Marshall, Laws & Barbaree, 1990). In line with these mechanisms, previous research reported that adolescent sex offenders who had been sexually abused tended to perpetrate the same types of sexually abusive acts they had experienced themselves

(Bijleveld & Hendriks, 2007; Burton, 2003; Veneziano, Veneziano & LeGrand, 2000). While a comprehensive examination of all possible mechanisms underlying the intergenerational transmission of sexual offenses is beyond the scope of the current study, we will test to what extent the intergenerational transmission of sexual offending explains the clustering of sex offenses within families.

Based on the mechanisms just discussed, intergenerational transmission of sexual offending might explain the clustering of sex offenses within families in two ways. First, those who have been sexually abused by a family member may experience an increased risk to become sex offenders themselves, since having been a victim of sexual abuse in childhood is an often cited risk factor for becoming an abuser in later life (Salter et al., 2003). In addition, meta-analyses based on retrospective data show that both adolescent sex offenders (Seto & Lalumière, 2010) and adult sex offenders (Jespersen, Lalumière & Seto, 2009) more often have a history of childhood sexual abuse than non-sex offenders. Therefore, we hypothesize that the concentration of sexual offending within families is (partly) due to incest-victims being at higher odds to become sex offenders (Hypothesis 2a). We argue that this explanation is especially relevant for the concentration within families of sex offending against minors, as previous research shows that juvenile as well as adult sex offenders who commit crimes against children are more likely to report a history of childhood sexual abuse than sex offenders who commit crimes against adults or peers (Jespersen et al., 2009; Bijleveld & Hendriks, 2007). In addition, victims of childhood sexual abuse appear to be likely to commit the same kinds of sexual crimes as they experienced as a victim (Burton, 2003; Veneziano et al. 2000).

Second, sexual offending might also be transmitted intergenerationally without the younger generation being abused. As the above described mechanisms responsible for the intergenerational transmission of sexual delinquency indicate, exposure to deviant sexual behavior by family members may also lead to sexual offending without being victimized. Previous research showed that during their youth, adolescent sex offenders were significantly more often exposed to sex, pornography or sexual violence in the family, than were adolescent non-sex offenders (Seto & Lalumière, 2010). Although it remains unknown whether for sexually mature persons exposure to sex and pornography

precedes rather than follows deviant sexual behavior[17], we assume that childhood exposure to sexually deviant behavior may lead to sexual delinquency. Therefore we expect that the concentration of sexual offending within families can (partly) be explained by the intergenerational transmission of sexual delinquency, without being mediated by the offender himself having been victimized (Hypothesis 2b).

Moreover, we expect that these first two mechanisms will be stronger if the older sex offender is a parent or sibling of the younger sex offender, rather than when it is another relative. Previous research shows that if the perpetrator(s) are relationally closer to the victim, the victim is more likely to model the person's victimizing behaviors (Burton et al., 2002). One could therefore expect children who have been sexually abused by their parents or siblings to be more likely to become sex offenders than children who have been sexually abused by other relatives, such as uncles, aunts or cousins. The intergenerational transmission of sexual offending without being victimized may also be stronger if the older sex offender is a parent or sibling. Children are probably more intensively and for longer periods of time exposed to their parents' and siblings' sexually offending behavior than to the sexually offending behavior of other family members. In addition, in case of a sexually offending extended family member, parents can intervene and explain to their children that such behavior is abnormal, while such interventions are unlikely when the parent him-/herself is a sex offender. Supporting this argument, studies on the transmission of general delinquency also show that the odds of becoming delinquent are higher when one's parents or siblings are delinquent than when extended family members are delinquent (Farrington et al., 2001). For these reasons Hypothesis 2c states: the transmission of sexual offending will be stronger between nuclear family members than between extended family members.

6.2.3 Transmission from serious and violent offenses to sex offenses within families

A third possible explanation for the concentration of sexual offending within families is that sexual crimes are a manifestation of more general antisocial and violent tendencies. Gottfredson & Hirschi's (1990) general theory of crime for

[17] Marshall and colleagues (1990), for example, argue that juvenile sex offenders, following the onset of their sexual offending, are more likely to seek pornographic material to support their masturbatory activities.

example, suggests that offenders, due to their low self-control, have difficulties resisting the immediate gratifications that criminal opportunities provide. Consequently, individuals with low self control engage in many different types of crime, including sexual crimes. Concurrent with this notion, several typologies of both child abusers and rapists distinguish such 'antisocial sex offenders', whose sexual crimes are believed to be part of their general antisocial lifestyle (Lussier, Proulx & Leblanc, 2005; Robertiello & Terry, 2007; Seto & Barbaree, 1997). Hall and Hirschman's (1991; 1992) theory of sexual offending, for example, suggests that sex offenders primarily motivated by affective dysregulation are likely to commit both sexual and nonsexual offenses. Based on these theories, we would assume that there might be no specific transmission of sexual offending between generations. Instead, general antisocial and violent tendencies might be transmitted intergenerationally, and sexual offending appears in multiple generations as a by-product of these tendencies. In support of this hypothesis, previous research shows that sex offenses constitute a relatively small proportion of the criminal activity and criminal repertoire of sex offenders (Lussier, 2005). The majority of adolescent sex offenders also commits nonsexual offenses (France & Hudson, 1993). Moreover, when adolescent sex offenders recidivate, they are more likely to commit a nonsexual crime, than another sexual crime (Caldwell, 2002; Worling & Långstrøm, 2006). In addition, it has been shown that adolescent sex offenders and nonsex offenders were, as groups, similar to each other in terms of self-reported conduct problems, antisocial personality traits, family problems (such as parental separation or divorce, familial substance abuse, familial criminality) and IQ scores (Seto & Lalumière, 2010). Finally, Harris and colleagues (2009) show that in a sample of convicted male sex offenders, 88 percent of rapists and 57 percent of child molesters had committed more nonsexual crimes than sexual crimes. Based on the above theories and prior empirical results, we hypothesize that the concentration of sexual offending within families can (partly) be explained by the intergenerational transmission of serious and violent crimes (Hypothesis 3). We argue that this explanation especially pertains to the concentration of hands-on offending (both sex crimes against minors and rape and sexual assault) since these sexual crimes entail physical contact with victims which might involve violence, while this is not the case for hands-off offending.

6.2.4 Co-offending relatives

The fourth possible explanation is that sex offending concentrates within families because sexually abusive family members do not intervene, and might even cooperate or facilitate the sexual abuse. Bijleveld and colleagues (2007) estimated that approximately a third of all registrations of Dutch juveniles for a sex offense had been committed within a group. Other studies show that group sex offending is not a recent phenomena nor exclusively committed by juveniles: in Renaissance Florence one in three heterosexual rapes was a group rape (Smith, 2004), 80 percent of all rapes in Moscow between 1928 and 1929 were committed by a group (Oseretzky, 1929) and Bijleveld and Soudijn (2008) showed that more than half of the suspects of group sex offending in The Netherlands are 18 years or older. Little is known, however, about the prevalence of relatives within sex offending groups. Bijleveld and Soudijn (2008) estimated that a maximum of 25 percent of all group sex offences committed by persons above 26 concerned a married couple who sexually abused a child. In addition, Bijleveld and colleagues (2007) showed that, in a Dutch sample of male juvenile sex offending groups, 12 percent of the co-offenders were relatives. Based on these earlier studies, we hypothesize that the concentration of sexual offending within families can (partly) be explained by the co-offending of relatives (Hypothesis 4). We expect that this leads to the concentration within families of sex offenses against minors, as children might be more likely to be victimized by multiple family members because: (a) they live in the homes of (relatives of) these perpetrators; (b) because children generally are more vulnerable than more "mature" individuals, (c) children are less able to resist such abuse and may not even recognize it as abuse (let alone a crime) and thus not report it, and; (d) children may passively or actively take part in their own abuse and may fear that revealing the abuse may result in negative consequences to their perpetrator(s), especially if the perpetrator is a family member. This makes it more difficult for children to escape from such abuse.

6.2.5 Incest-victims mating with sexual abusive men

Finally, the non-offending parent, mostly the mother, may have an unintended mediating role. Faller (1989) showed that half of the non-offending mothers of sexually abused children had a history of sexual abuse in their family of origin. In addition, Avery and colleagues (2002) find that if non-offending parents had

been sexually abused as children, their children are more likely to be sexually abused as well. This might be a consequence of the fact that women who were raised in incestuous families are likely to mate with a partner displaying a similar degree of role and boundary confusion. When such partners form their own family, they may end up in a family environment similar to that of their families of origin (Estes & Tidwell, 2002), in which the next generation of children is victimized. In addition, Faller (1989) argues that sexually abused women may mate with men who will not make sexual demands upon them. Some of those men do not make sexual demands upon adult women because their real sexual interest is in children. According to this hypothesis, women with a history of sexual abuse would be more likely to mate with a sexually abusive partner. If the non-offending mothers were abused by a family member during childhood this leads to a concentration of sexual crimes within families since both this family member and the husbands of the women commit sexual crimes. Our final hypothesis, therefore, is: the concentration of sexual offending within families is (partly) caused by the fact that female incest-victims mate with sexually abusive men (Hypothesis 5). We argue this especially leads to a clustering of sexual crimes against minors since the mothers are more likely to have been abused as a child, while their husbands abuse their children as well.

In sum, we will test the following hypotheses:

Hypothesis 1a: Sexual offending concentrates within families.
Hypothesis 1b: The concentration of hands-on offending within families and sex offending against minors in particular, will be larger than the concentration of hands-off offending.
Hypothesis 2a: The concentration of sexual offending within families is (partly) caused due to incest-victims being at higher odds to become sex offenders.
Hypothesis 2b: The concentration of sexual offending within families can (partly) be explained by the intergenerational transmission of sexual delinquency, without the mediating effect of the younger generation being victimized.
Hypothesis 2c: The transmission of sexual offending will be stronger between nuclear family members than between extended family members.
Hypothesis 3: The concentration of sexual offending within families can (partly) be explained by the intergenerational transmission of serious and violent crimes.
Hypothesis 4: The concentration of sexual offending within families can (partly) be explained by co-offending of relatives.
Hypothesis 5: The concentration of sexual offending within families is (partly) caused by female incest-victims who mate with sexually abusive men.

6.3 Method

In this study we use two samples from two prospective intergenerational studies: a sample of British families from the Cambridge Study in Delinquent Development (CSDD), and a sample of Dutch families from the Transfive study.

6.3.1 Sample from the CSDD

The intergenerational transmission of sex offenses in England was investigated using data from the *CSDD*, a prospective longitudinal study that has followed 411 London males born around 1953. At the time they were first contacted in 1961-1962, these males were all living in a working-class inner-city area of South London. The sample was chosen by taking all of the boys who were then aged 8-9 and on the registers of six state primary schools within a one-mile radius of a research office that had been established. Hence, the most common year of birth for these males was 1953. In nearly all cases (94 percent), their family breadwinner in 1961-1962 (usually the father) had a working class occupation (skilled, semi-skilled, or unskilled manual worker). Most of the boys were Caucasian and of British origin. Donald J. West originally directed the study and David P. Farrington, who worked on it since 1969, has directed it since 1982. The males have been studied at frequent intervals between the ages of eight and fifty. Information about criminal convictions and self-reported delinquency was collected over the course of these years. Additionally, convictions records for the parents and siblings of these 411 males have been collected. For the current study, only the official records were used, because self-reports were not available for parents and siblings. For more information and major findings see West (1969, 1982), West and Farrington (1973, 1977), Farrington and West (1990), Farrington (1995, 2003), and Farrington et al. (2006; 2009).

The current investigation studies the original men, their parents and their siblings. Because the data collection started with families that had at least one boy born about 1953, the data set did not contain families with girls only. Therefore the proportion of males to females in the current sample was approximately 2:1. The most recent criminal record search for the original men took place in December 2004, for their full biological siblings in September 2002 and for their biological parents in December 1994. At the time of data collection the original men were on average 51 years old, siblings were on average 48 years

old and parents were on average 70 years old. In total, the British sample consisted of 1296 men and 916 women.

6.3.2 Variables from the CSDD

Convictions for sexual offenses were searched in the Criminal Record Office in London (Farrington et al., 1996). Sexual offenses against males as well as females ranged from rape, indecent assault, indecent exposure, to indecent telephone messages.

6.3.3 Sample from the Transfive Study

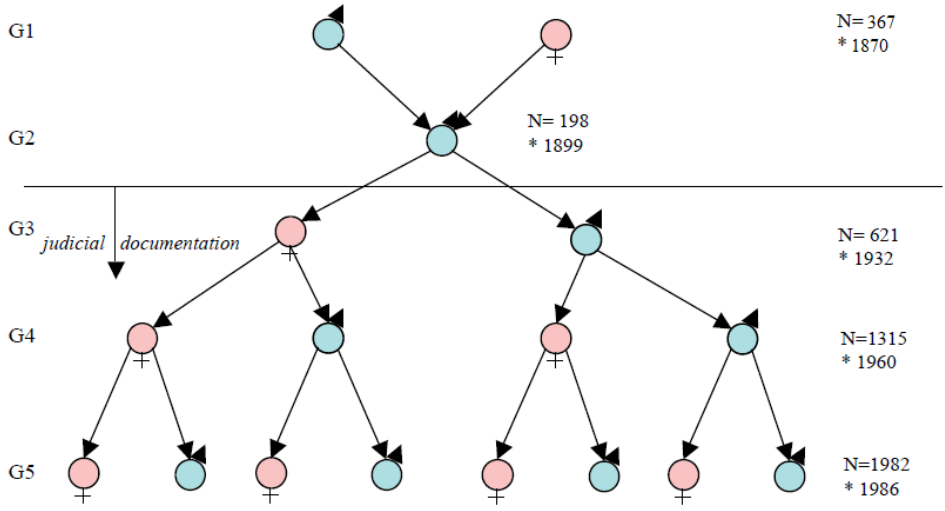
The intergenerational transmission of sex offenses in the Netherlands was studied using the youngest three generations from the Transfive study, which contains data on five consecutive generations. Data collection of this study started with the first 198 boys who were placed in a Dutch Catholic reform school between 1911 and 1914. Some boys were placed in this institution because of general concern about their character and problem behavior, including minor delinquency. Others were in the reform school because their parents, according to guardian organizations, were not able to take proper care of them. Therefore, these 198 boys can be said to constitute a high-risk sample in terms of delinquency.

The parents and all descendants of these boys were traced in Dutch genealogical and municipal records, with a retrieval rate of 100 percent. Emigrated sample members and their descendants were not traced further. The parents of the 198 boys are the oldest generation in the sample and are called 'Generation 1' (G1). The 198 boys are called G2, while their children, grandchildren and great-grandchildren are called G3, G4 and G5, respectively. The G3 to G5 were studied prospectively[18]. On average, the G3 were born in 1932; the G4 in 1960; and the G5 in 1986. At the moment of data collection, the

[18] Although data collection started when the G3, G4 and G5 already were, respectively, 75, 47 and 21 years old, information on their offending behavior is collected prospectively since we did not know how their offending behavior would develop over time. For the older generations, the data is not collected prospectively because we knew that the G2 showed problem behavior, including minor delinquency.

surviving G3 were approximately 75 years old, on average. The surviving G4 were about 47 years old and the G5 were approximately 21 years old. Figure 6.1 summarizes the sample from the Transfive Study. In addition to the respondents shown in Figure 6.1, all partners to whom these respondents were ever married or with whom they were ever in a registered partnership are included to the dataset as well. Family members of these partners, however, are not included to the dataset. More detailed information may be found in Bijleveld & Wijkman (2009).

Figure 6.1 Design of the sample from the Transfive Study



Note: *= average year of birth

For this current study we included all G3, G4 and G5, who were 12 years or older at the moment of data collection, and their partners, in the analyses. Persons under the age of 12 were not taken into account because people in The Netherlands can only be prosecuted from age 12 onwards. Since 58 of the 198 G2-men did not have any children, our sample constitutes of 140 extended families. Within these 140 extended families there are 550 nuclear families consisting of the G3 and, if any, their partners and children and 1204 nuclear families consisting of the G4 and, if any, their partners and children. In total, the Dutch sample for this study includes 2661 men and 2516 women. The persons in this sample were predominantly ethnic Dutch, Catholic and from families that were part of the lower social strata of Dutch society around the 1900s.

6.3.4 Variables from the Transfive Study

The demographic variables for each sample member were obtained from the Dutch population registration data (GBA). This data includes the dates of birth, death, marriage and divorce or separation. Information on delinquency was obtained from the archives of the Dutch Criminal Records Documentation Service ('judicial documentation') in December 2007. Since these records do not contain data on individuals born before 1912 and may miss people born between 1912 and 1916, we have excluded all G3 and their partners born before 1916 from the analysis. The records are complete for the remaining respondents, apart for those sample members born in the Almelo 'arrondissement' before 1967, which applies to no more than 3% of the G3 and G4.

Offenses have been classified based on the Statistics Netherlands standard classification for offenses (Eggen and Van der Heide, 2005). Exhibitionistic offenses are considered as hands-off crimes, (attempts to) sexual assaults and rape are considered as hands-on crimes and sexual crimes against persons under the age of 16 are considered as (hands-on) sexual crimes against minors. Moreover, all violent offenses, property offenses, arson, drugs and weapons offenses are considered as serious crimes. All registrations that did not result in an acquittal or technical dismissal were taken into account. Because the judicial documentation does not have any information about victims, we obtained this information from the court file of each sexual offense. Unfortunately, sometimes the court files of the old criminal cases had been destroyed or did not contain specific victim information. In total, we retrieved and studied court files for 54 percent of the sexual offenses. Of the court files studied, 67 percent contained enough information to trace the relationship between the victim and perpetrator.

6.3.5 Analyses

We will start our analyses by aggregating the individual conviction data to the family level. This enables us to examine to what extent sexual crimes are concentrated in families. Kolmogorov-Smirnov-tests will be estimated to test whether the concentration of sex offending within families differs significantly from a Poisson distribution with λ sex offenses per family. We use Poisson distributions in these tests since (sexual) offending takes the form of an event count. Thereafter, we will use the individual data to calculate odds ratios in order

to test whether the concentration of sex offending within families can be explained by an intergenerational transmission of sexual offending from parents to children, between siblings or between extended family members. Odds ratios are simple to interpret and widely used measures in intergenerational studies to assess the transmission of delinquency. However, odds ratios do not enable us to control for the fact that parents with more offspring appear more often in the equation. Therefore, GEE (Generalized Estimating Equation) models will be estimated to control for this intra-cluster correlation (Ghisletta and Spini, 2004). All odds ratios and corresponding confidence intervals that are displayed in the following section, are those from the GEE models. Differences between two odds ratios are tested for significance by estimating a ratio between the two odds ratios, with a corresponding confidence interval (Altman & Bland, 2003). The significance of those RORs should however be taken as not more than indicative, as there is dependency between the samples compared. In order to test our third hypothesis, that states that the concentration of sex offenses within families can be explained by the intergenerational transmission of violent crimes, we will use an ANOVA to test whether families that include one or more sex offenders commit more serious and violent offenses than families that do not include any sex offenders. In addition, GEE models will be estimated to estimate whether persons with violent family members are at increased risk to commit sex offenses.

6.4 Results

6.4.1 Prevalence of sexual crimes within families

In Table 6.1 the total number of sex offenses and sex offenders in both the British CSDD sample and the Dutch Transfive sample are shown. In the sample from the CSDD, 26 persons from 22 nuclear families committed a total of 40 sex crimes. Since the CSDD sample did not include information about extended family members, it is unknown to how many extended families the 26 sex offenders belong. Moreover, the CSDD computerized offense file did not distinguish between different types of sex offenses. For the Transfive sample this information is present. For this sample there are 72 sex offenders from 64 nuclear families within 38 extended families who committed 101 sex crimes. More than half of these sex offenses were committed against minors, more than a quarter of the sex crimes involved a rape or sexual assault and less than one in five was a hands-off sex offense. The child abusers most often committed more than one

sex offense, as shown by the large difference between the number of offenses and the number of offenders. Hands-off offenders and rapists mostly committed a single sex offense over the course of their criminal career.

Table 6.1 Overview of the distribution of sex offenses within the samples, offenders and families.

Sample	**CSDD**	**Transfive**				
Crime	**All sex crimes**	**Child abuse**	**Rape**	**All hands-on**	**Hands-off**	**Total**
Offenses (N)	40	55	27	82	19	101
Offenders (N)	26	34	26	58	16	72
Nuclear families (N)	22	29	25	50	16	64
Extended families (N)	-	18	18	29	15	38

Note: The total number of offenders in the Transfive sample is not the sum of the number of hands-off offenders, child abusers and rapist since some offenders committed multiple types of sex crimes.

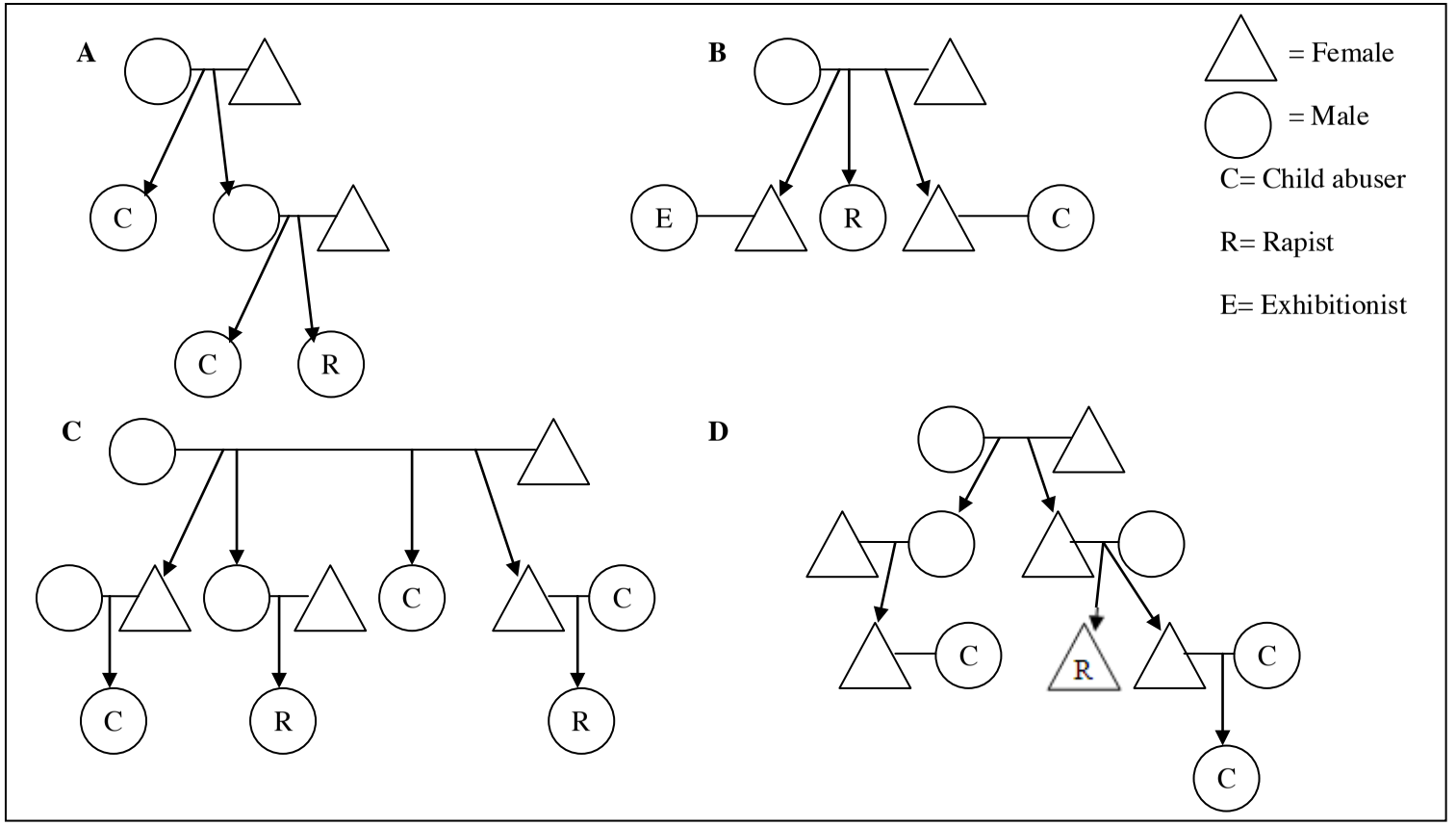
In the CSDD sample, there were only three nuclear families that included multiple sex offenders. In one family both father and son committed sexual crimes, in another family two brothers were convicted for a sex crime and the third family included three brothers who were all sex offenders. In the Transfive sample, eight nuclear families included two sex offenders. In three cases both father and son committed sex crimes, in the five other cases two brothers were both sex offenders. Relatively few nuclear families thus include more than one sex offender in both the British and the Dutch samples. When we also take the extended family members from the Dutch sample into account, we see much more clustering of sex offenders within families. Table 6.2 summarizes all combinations of sex offenders that were found within the extended families from the Transfive study. The relationship between two sex offenders within one extended family found most often was one between an uncle and a nephew, which occurred seven times. Other relationships between sex offenders within the same family that were found often were: an uncle-by-marriage and a nephew (6 times), a brother-in-law and a brother (6), two brothers (5), two cousins (4) and a cousin-by marriage and a cousin (4).

Table 6.2 Overview of all combinations of sex offenders within extended families from the Transfive Study

Relationship	*N*	Relationship	*N*
Uncle and nephew	7	Father and son	3
Uncle-by-marriage and nephew	6	Brother-in law and brother-in-law	3
Brother-in-law and brother	6	Aunt and nephew	1
Brother and brother	5	Father and son-in-law	1
Cousin and cousin	4	Brother-in-law and sister	1
Cousin-by-marriage and cousin	4		

Figure 6.2 illustrates four of such extended families that include multiple sex offenders. Family A is an example of a family that includes three adolescent sex offenders, two brothers and their uncle. The uncle committed a sex crime against a minor at the age of 17. Almost 24 years later, the oldest son of his brother was convicted for a rape he committed when he was 15 years old. Over six years after this conviction, one of his four younger brothers committed a sex crime against a minor at the age of 17. Within family B there are three sex offenders, convicted for three different types of offenses. The parents of family B have five children: three daughters and two brothers. In 1970, their oldest daughter marries a man who would be convicted for exhibitionistic crimes twice: after 12 and 14 years of marriage. Her youngest sister marries a sex offender as well. However, this man was convicted for this crime before this marriage; he committed a sex crime against a minor when he was 15 years old. More than twenty years after these sisters married, their youngest brother is convicted for sexual assault at age 41. Family C in Figure 6.2 includes five sex offenders from two generations. The two sex offenders in the older generations were brothers-in-law. The first of them committed two sex crimes against minors at the age of 24 and 29. The second committed two sex crimes against minors at the age of 38, when one of his sons was only two years old. Fourteen years later, this son was convicted for rape. Two older cousins of this son were convicted for sex offenses as well. One of them raped someone at the age of 18, the other abused a child when he was 32. Finally, family D from Figure 6.2 includes three male sex offenders and one female sex offender. This woman was the first in the family to commit a sexual crime when she raped someone at the age of 23. Two years after this crime, her niece's husband committed a sex crime against a minor, at the age of 22. Three years later, this woman's brother-in-law abused a child when he was

Figure 6.2: Four extended families from the Transfive study that include multiple sex offenders



Note: Only those family members who are necessary to illustrate the familial relationships are displayed.

33 years old. At that moment, one of his sons was almost five years old. At the age of 25, this son followed in his father's footsteps and also committed a sexual crime against a minor.

These examples of the four families in Figure 6.2 illustrate that sex offenses might cluster in families in various ways: between relatives or in-laws, within the same generation or between different generations, transmission of the same or different type of sex offenses and sex offenses committed at various ages. Only one of the sex offenders from the families in Figure 6.2 was a woman. In total, there were only five female sex offenders in the CSDD sample and the Transfive sample combined. The only female sex offender who was included in the CSDD sample committed three sex offenses. The four sex offending females in the Transfive study all committed one sex offense. Given this low prevalence of female sex offenders in the samples, we have excluded all females from further analyses.

6.4.2 Concentration of sexual crimes within families

In order to test our first hypothesis, we used Kolmogorov-Smirnov tests to examine whether sex offenses significantly concentrate within families. For both the nuclear families from the CSDD and the Transfive study, the Kolmogorov-Smirnov tests indicated that the sex offenses were not significantly concentrated in these nuclear families. For the extended families from the Transfive study, however, we did find significant results, which are shown in Table 6.3. The results from the upper part of Table 6.3 illustrate that sex offenses significantly concentrates within extended families This concentration can be attributed to the fact that hands-on offenses, and then particularly sex offenses against minors cluster within extended families, as shown by the significant Kolmogorov-Smirnov test in Table 6.3. No significant results were found for the concentration of hands-off offenses or of rape and sexual assault within families. We also tested whether the number of sex offenders concentrates within the extended families to control for the possibility that the concentration of sex offenses within families is caused by a single family member committing multiple sex offenses. The lower part of Table 6.3 shows that the concentration of child abusers within families is not statistically significant, while the concentration of all hands-on offenders and all sex offenders remains significant. The concentration of sex offenses against minors within families is significant while the concentration of child abusing

offenders is not. It seems, therefore, that the concentration of sex offenses against minors is caused by child abusers who commit multiple sex offenses against minors, as we have seen in Table 6.1. In addition, the significant concentration of all sex offenders within extended families is probably driven by the concentration of hands-on offenders since hands-off offenders do not concentrate within families at all. These results are in line with hypothesis 1a, that sexual offending would cluster within families. Hypothesis 1b, which stated that hands-on offenses, and sex offenses against minors in particular, would cluster more within families than hands-off offenses can only partly be confirmed with the results from Table 6.3.

Table 6.3 Concentration of sexual offenses and offenders within extended families from Transfive study

Type of crime	Hands-off	Rape and sexual assault	Child abuse	All hands-on	All sex crimes
λ Offenses	0.129	0.186	0.379	0.564	0.693
Kolmogorov-Smirnov *Z*	0.244	0.484	2.208	2.821	2.956
Significance	1.000	0.973	0.000	0.000	0.000
λ Offenders	0.107	0.179	0.229	0.393	0.486
Kolmogorov-Smirnov *Z*	0.021	0.414	0.896	1.562	1.594
Significance	1.000	0.996	0.398	0.015	0.012
N	140	140	140	140	140

6.4.3 Transmission of sexual crimes within families

After we have shown that sex offenses concentrate within the extended families from the Transfive study, we examined how this concentration of sex crimes, and especially hands-on crimes, can be explained. Table 6.4 shows the results from the GEE models that estimated the degree of transmission of sex offenses from fathers, brothers, any nuclear family member (i.e. father and brothers), any extended family member (i.e. grandfathers, uncles, nephews, in-laws) and any family member (i.e. nuclear and extended family members). These GEE models are estimated for men from each generation separately, and for men from all

generations taken together. The GEE models are not estimated for the partners of the G3 and G4 since our data does not include information on the members of their family of origin.

Table 6.4 shows that none of the odds ratios for the men in the youngest generation (G5) were significant. For example, the odds ratio for transmission from the father is 5.91. However, the fact that the lower bound of the confidence interval is below 1 while the upper bound of the confidence interval is far above 1 indicates that this odds ratio is not statistically significant. Male G5 who have a father who is convicted for a hands-on offense, thus, do not have a significantly higher risk to commit a hands-on offense themselves. These insignificant odds ratios for the G5 are likely caused by the low number of sex offenders in this generation (N=13), which is not surprising given their relatively young age. All but one of the odds ratios for the men from the other two generations (G3 and G4) are significant. In the last column of Table 6.4, the transmission to men from all three generations is shown. As expected, all odds ratios in this column are significant, indicating that having a sex offending father, brother or other male relative increases the probability that one becomes a sex offender. However, most odds ratios have wide confidence intervals which could be caused by the low prevalence of sex offenders in the sample. The results should, therefore, be interpreted with some caution.

Although the results from Table 6.4 provide evidence for transmission of sexual offending between family members, these results do not tell us whether this transmission is caused by sex offenders being sexually victimized by their relative, as proposed in Hypothesis 2a, or that victimization is not necessary for the transmission to occur, as proposed by Hypothesis 2b. Information about the victims of the sex offenses from the court files – on which we will elaborate later on – shows that none of the sex offenders was the victim of a sex crime for which a family member was convicted. This suggests that sex offenses are transmitted between family members without the relative victimizing the other. Based on these results we reject Hypothesis 2a and confirm Hypothesis 2b.

In order to test Hypothesis 2c, whether the transmission from nuclear family members is stronger than the transmission from extended family members, we estimated a ratio between odds ratios (ROR). Although the odds ratio for the transmission of hands-on offending between nuclear family members

Table 6.4 GEE models for intergenerational transmission of (hands-on) sex offending among males from the Transfive Study

	Transmission of hands-on offending			
Transmission from:	**G3**	**G4**	**G5**	**All generations**
Father	a	**7.20 (1.46-35.55)**	5.91 (0.70-49.60)	**6.95 (1.96-24.70)**
Brother	**8.93 (2.70-29.55)**	**6.20 (1.88-20.45)**	b	**8.08 (3.78-17.25)**
Any nuclear family member	**8.93 (2.70-29.55)**	**8.75 (2.99-25.66)**	3.69 (0.45-30.17)	**8.92 (4.42-17.98)**
Any extended family member	**18.17 (3.88-85.11)**	**5.64 (1.77-17.92)**	3.24 (0.94-11.18)	**5.95 (2.87-12.33)**
Any family member	**13.78 (2.95-64.39)**	**27.17 (3.55-208.10)**	3.14 (0.91-10.80)	**8.73 (3.82-19.97)**
	Transmission any sex offending			
Transmission from:	**G3**	**G4**	**G5**	**All generations**
Father	a	4.61 (0.97-21.91)	3.33 (0.41-26.95)	**4.20 (1.22-14.51)**
Brother	**4.42 (1.49-13.17)**	**6.09 (1.89-19.65)**	b	**5.91 (2.83-12.35)**
Any nuclear family member	**4.42 (1.49-13.17)**	**7.20 (2.58-20.15)**	2.12 (0.27-16.86)	**5.86 (3.00-11.47)**
Any extended family member	**6.09 (2.01-18.43)**	**3.37 (1.25-9.10)**	1.59 (0.53-4.77)	**2.83 (1.54-5.20)**
Any family member	**3.98 (1.32-11.98)**	**7.74 (2.22-27.00)**	1.48 (0.49-4.44)	**3.35 (1.77-6.32)**

Note: odds ratios in bold are significant; a: the transmission from father to son is not estimated for the G3s since their fathers are not included in the sample; b: the odds ratios for the transmission between G5-brothers could not be estimated since there were no G5 brothers who were both a sex offender.

is larger than the odds ratio for the transmission of hands-on offending between extended family member, the difference is not significant [ROR: 1.50 (0.55-4.12)]. Also the difference between transmission of any sex offending between nuclear family members and between extended family members is not significant [ROR: 2.07 (0.84-5.12)]. These insignificant RORs might be caused by the large confidence intervals of the odds ratios in Table 6.4. Hypothesis 2c can thus not be confirmed for hands-on offending nor for any sex offending. Table 6.4 further shows that all odds ratios are higher for the transmission of hands-on offending than for the transmission of any sex offending, which would indicate a stronger transmission effect for hands-on offending than for any sex offending. However, these differences between odds ratios for hands-on offending and any sex offending are not significant. Finally, one should note that any sex offending includes hands-on offending, and that the transmission of any sex offending between family members is more likely when hands-on offenses are committed.

6.4.4 Transmission from serious and violent crimes to sexual crimes within families

Next, to test our third hypothesis, we calculated the average number of serious and violent offenses committed by family members of families with none, one or multiple hands-on sex offenders. Families from which the members did not commit any serious offense are excluded from the analysis in order to compare between offending families. As Table 6.5 shows, the number of serious crimes as well as the number of violent crimes is much higher in families with one or multiple hands-on offenders than in criminal families with no hands-on offenders. An ANOVA showed that these differences are significant. In order to control for differences in family size, we also calculated the percentage of male family members who were convicted for a serious or violent crime in each family. Again, families with one or multiple hands-on sex offenders included a significantly higher percentage of men who were convicted for serious or violent crimes than families with no hands-on sex offenders. We also repeated these analyses for any sex offenders instead of hands-on offenders (not shown in Table 6.5). This led to similar results, except for the difference in percentages of family members who were convicted for violent crimes, which was not significant.

Table 6.5 The average number of serious and violent crimes within criminal families from the Transfive study

Offending within family	Average number of crimes		Percentage convicted	
	Serious crimes	Violent crimes	Serious crimes	Violent crimes
No hands-on offenders (N=92)	14.24	2.95	28.7%	11.3%
One hands-on offender (N=12)	58.75	12.17	32.6%	12.5%
Multiple hands-on offenders (N=15)	127.47	19.93	39.7%	19.6%
All families (N=119)	33.00***	6.02***	30.5%*	12.4%*

*p<.05;**p<.01; ***: p<.001; *Note*: only the convictions from male family members are taken into account; sex offenses are excluded from the total number of crimes

As we have shown that families with sex offenders commit more serious and violent crimes than families without sex offenders, we would expect the sex offenders themselves to be more antisocial and violent as well. In Table 6.6 we present the average number of serious and violent crimes committed by non-sex offenders and hands-on offenders. Hands-on offenders, on average, commit significantly more serious and violent crimes than do non-sex offenders. Also the percentage of hands-on offenders convicted for serious and violent crimes is significantly higher than the percentage of non-sex offenders convicted for such crimes. However, when we compared the average number of crimes of the hands-on offenders with only the non-sex offenders who were convicted for a serious crime (i.e. excluding the non-offenders), we did not find a significant difference anymore (not shown in Table 6.6). The hands-on offenders in the Dutch sample are, thus, not significantly different from other serious offenders in terms of the average number of serious and violent crimes. We also repeated these analyses for all sex offenders (not shown in Table 6.6), which led to similar results.

Although the sex offenders were shown to commit more serious and violent crimes, 36.4 percent of the hands-on offenders and 39.7 percent of all sex offenders did not commit any serious crimes, while respectively 76.4 and 72.1 percent did not commit any violent crimes. In additional analyses (not shown in Table 6.6), we tested whether the sex offenders who also commit serious or

violent crimes, more often than sex offenders who do not commit other serious or violent crimes, belong to families whose members commit more serious and violent crimes. However, no significant difference was found. Families in which many violent and serious crimes are committed, thus, include both versatile sex offenders, who also commit other serious and violent crimes, and 'specialized' sex offenders, who only commit sex offenses.

Table 6.6 The average number of serious and violent crimes of non-sex offenders and hands-on offenders

	Average number of crimes		Percentage convicted	
	Serious crimes	**Violent crimes**	**Serious crimes**	**Violent crimes**
Non-sex offenders (N=2,606)	1.37	0.26	27.6%	11.2 %
Hands-on offenders (N=55)	6.55	0.80	63.6%	23.6%
All respondents (N=3,111)	1.48***	0.27***	28.3%***	11.5%**

*p<.05;**p<.01; ***: p<.001. *Note*: sex offenses are extracted from the total number of crimes

Finally, we estimated GEE models to test whether persons with violent family members are at increased risk to become sex offenders, which we would expect based on earlier results (see Table 6.5). Table 6.7 shows that individuals with a violent brother, any violent nuclear family member or any violent extended family member have a significantly higher chance to be a hands-on sex offender. The odds ratio for having any violent extended family member is larger than the odds ratio for having any violent nuclear family member, but the difference is not significant [ROR: 1.64 (0.42-6.44)]. In addition, those with a violent brother or any violent nuclear family member are at increased risk to be a sex offender[19]. The same analyses were repeated for transmission from serious

[19] Table 6.7 shows the odds ratios for all generations together. Odds ratios were also estimated for each generation separately, but this resulted in only a couple significant odds ratios for generation 5. This is probably the consequence of the low prevalence of sex offenders in each generation, while having a violent family member is much more likely.

offending to (hands-on) sex offending. This showed significant odds ratios for having a serious offending brother, father or any nuclear family member (not shown in Table 6.7). Odds ratios for serious offending by extended family members could not be estimated because all hands-on offenders had at least one serious offending extended family member.

In short, the results from Table 6.5, 6.6 and 6.7 show that sex offenders come from families in which serious and violent crimes are more prevalent than in (criminal) families without any sex offenders, that sex offenders themselves commit on average many serious and violent crimes, and that individuals with criminal and violent family members are at increased risk of becoming a sex offender. For these reasons, we confirm our third hypothesis that the concentration of sex offenses within families is partly explained by the transmission of serious and violent crimes.

Table 6.7 GEE models for the intergenerational transmission from violent offending to (hands-on) sex offending

	Violent offending → hands-on offending	**Violent offending→ any sex offending**
Transmission from:		
Father	1.52 (0.51-4.53)	1.20 (0.41-3.50)
Brother	**2.68 (1.31-5.48)**	**2.32 (1.19-4.55)**
Any nuclear family member	**2.35 (1.19-4.65)**	**1.91 (1.01-3.60)**
Any extended family member	**3.86 (1.18-12.62)**	2.20 (0.93-5.22)
Any family member	3.15 (0.96-10.29)	1.79 (0.75-4.25)

Note: odds ratios in bold are significant

6.4.5 Victims of sexual abuse

Our final two hypotheses postulated that sexual crimes cluster in families through co-offending family members (Hypothesis 4) or because female incest-victims mate with sex offenders (Hypothesis 5). Table 6.8 summarizes the relationship between the victims and perpetrators of the sex crimes. In 31.15 percent of the cases, the victim was a family member of the perpetrator, most often a niece or the (step)daughter of the sex offender. Victims from outside the family are most often strangers and acquaintances.

Not much empirical support was found for our hypothesis that the concentration of sex offending within families can be explained by co-offending family members. In only one case, two family members from the Dutch sample committed a sex offense together: two brothers, under influence of alcohol, raped a woman whom they met in a bar that night. Besides that, there is only one other victim who was abused by multiple family members: a father and son both abused their granddaughter/niece. However, information from the court files made clear that this was not an offence that they perpetrated together, since both perpetrators had not been in contact with each other for decades. In some other cases, sex offenders from our sample co-offended with non-family members. However, since the perpetrators came from different families this cannot explain the concentration of sex offending within families. In sum, these results give little support for the hypothesis that the concentration of sex offending can be explained by co-offending family members.

Lastly, based on the court files, we know that one woman in our dataset who was abused by her father married a man who, later on, sexually abused her 13 year old daughter. However, since this father is not included in our sample[20], it does not explain the concentration of sex offending within the families in our sample. None of the other known sexually abused women in our sample married a man who was or became a sex offender. Thus, our fifth hypothesis, which states that sex offending concentrate within families because female incest-victims marry sex offenders, cannot be confirmed either.

[20] This man is not included in the sample because he is the father of the partner (i.e. the sexually abused woman) of one of the G4 males (i.e. her husband who sexually abused her daughter). As mentioned in the method section, such family members of the partners are not included in the sample.

Table 6.8 Overview of the relationship between perpetrator and victim of sex offenses

Victims within family	N	Percentage	Other victims	N	Percentage
Daughter	5	8.20	Neighbor	3	4.92
Step daughter	3	4.92	Acquaintance	9	14.75
Spouse	1	1.64	Stranger	11	18.03
Sister	1	1.64	**Total**	23	37.70
Granddaughter	1	1.64			
Niece	6	9.84			
Nephew	2	3.28			
Total	19	31.15	**Unknown**	19	31.15

Note: The number of victims is higher than the number of convictions since in some cases there were multiple victims; victims are considered as unknown if the court files did not include victims' names, if the relationship between the victim and perpetrator is unknown and if there is no specific victim (e.g. in the case of exhibitionism).

6.5 Discussion

In this chapter we examined the degree of concentration of sex offending within Dutch and British families. In addition, we examined whether the degree of concentration differs for different types of sex offenses and we tested five possible explanations for this concentration. We used data from the Cambridge Study in Delinquent Development (CSDD) that includes 2212 persons from 397 British nuclear families and data from the Transfive study that includes 5177 persons from 140 Dutch extended families.

Our analyses showed that there is no significant concentration of sex offenses within the nuclear families from either the CSDD or the Transfive study. However, sex offenses, more specifically hands-on offenses and offenses against minors, were shown to cluster significantly within the extended families from the Transfive study; the clustering of sex offenses against minors 'driving' the overall clustering effect observed. This clustering of sex offenses against minors within families, can by itself be explained by the fact that many child abusers commit multiple sex offenses. Moreover, the concentration of all sex offenses within families is mainly driven by the concentration of hands-on offenses, as we found that hands-off offenses do not concentrate within families at all. We found support for two possible explanations for the concentration of hands-on offending and any sex offending within the Dutch extended families. First, we found support for transmission of any sex offending and hands-on offending from father to son, between brothers and between other male relatives. Transmission between nuclear family members was larger than transmission between extended family members, but the difference was not significant. This transmission is not mediated by childhood sexual abuse victimization of sex offenders. Second, we found support for the hypothesis that sex offending clusters within families due to a transmission of serious and violent delinquency. Families that include one or more sex offenders commit much more serious and violent crimes than (criminal) families without any sex offenders. This is partly due to the fact that sex offenders themselves commit relatively many serious and violent crimes. Also, persons with violent family members are at increased risk to be a sex offender. It thus seems that sex offending within these families is a manifestation of general antisocial and violent tendencies.

Against our expectations we did not find a concentration of specific types of sex offending, such as hands-off offending, sex offending against minors and rape or sexual assault. This might be a consequence of the relative low prevalence of each of these specific types of sex offending, which makes it hard to reach statistical significance. On the other hand, generalized social learning mechanisms might be at work instead of specific social learning mechanisms. Specific modeling assumes that one exactly imitates the behavior of their model, while generalized antisocial modeling might also lead to other forms of antisocial behavior (Bandura, 1977; Kalmuss, 1984). Criminal family members may not transmit their exact behavior, but more general antisocial scripts that include a more broad disregard of behavioral conventions and that justify letting one's own needs take precedence over the welfare of others. In turn, such general antisocial scripts could result in violent, but also in sexual offending thus explaining the link between violent family members and sexual offending. Furthermore, even sexually distorted scripts could be 'versatile' in the sense that these scripts convey more general cognitions – e.g. denial of injury, blaming the victim - that aim to justify sexual transgressions, regardless of the specific type of offense. This might be an explanation for the fact that we did find concentration of any sex offending and all hands-on offending within families, but not for specific types of offending.

Moreover, we did not find support for our hypothesis that the concentration of sex offending within families was caused by incest-victims becoming sex offenders. This is in contrast with earlier research that showed that many sex offenders experienced childhood sexual abuse (e.g. Faller, 1989; Jespersen et al., 2009; Seto & Lalumière, 2010). A possible explanation might be the use of official data. The actual number of victims of sexual abuse is largely underestimated by these data, because only a small minority of victims report their victimization. The court files of some cases contained more extensive information about the sex offenders, including information about their history of sexual abuse. These court files showed that some sex offenders indeed stated to be sexually abused as a child, but not by a relative or that the relative was not convicted for the crime. While this might be interpreted as supportive of the hypothesis that child abuse victims are more likely to evolve to sex offenders themselves, caution remains warranted. First, the available data on child sexual abuse are retrospective only and give no information about the number of abused children that do not continue the assumed 'cycle' of sexual abuse. Second,

offenders' claims of being themselves victimized may also result from their efforts to rationalize or exculpate their offending behavior, either in their own eyes or in the eyes of clinicians or criminal justice officials.

Our results further showed that the Dutch sample includes both versatile sex offenders, who also commit violent and serious offenses, and specialized sex offenders, who only commit sex offenses. This is in line with typologies for sex offenders that distinguish non-sexual subtypes from sexual subtypes (Robertiello & Terry, 2007) and with previous research on the (lack of) specialization of sex offenders (e.g. Harris et al., 2009). More remarkable is our finding that both the versatile and specialized sex offenders have family members who commit relatively many serious and violent offenses. We would have expected that only the versatile sex offenders come from antisocial and violent families, as their sex offenses are part of a general antisocial and violent behavioral repertoire which might be transmitted from family members. However, the specialized sex offenders were also shown to come from antisocial and violent families. These findings may result from an official bias against members of known criminal families and persons. If antisocial and violent families are monitored more intensively by the police and the criminal justice system, sex offenses committed by family members from known antisocial families might more often result in a conviction - rather than for example a referral to outpatient treatment without a conviction - even in the absence of a criminal history. Consequently, specialized sex offenders from such families might be more likely to be convicted for the sex offenses they commit, than specialized sex offenders from non-antisocial families.

Like any other study, this study has its limitations. The most important limitation is the use of official judicial information. As mentioned before, only a small minority of sex offenses is reported to the police, which leads to a large dark number (see Bouchard and Lussier, in press). Next, relatively more sex offenses than other offenses are acquitted or end in a technical dismissal. We discarded all such cases as we could not be 'certain' – to the level of certainty possible using official data - that the offender had actually committed the abuse. More support might have been found for our hypothesis that incest-victims become sex offenders if self-reported data had been used. As mentioned above, the court files showed that, in some cases, sex offenders were sexually abused in their youth by a family member who was never convicted for such acts. The use

of self-reported data might provide more information on the history of sexual abuse of sex offenders. But also the concentration itself might be under- or overestimated by the use of conviction data. On the one hand, it might be overestimated if families in which sexual offending occurred are more intensively monitored by police and justice. This increases the probability to detect sex offending within such families, while sex offending in other families remains undetected. On the other hand, the concentration might be underestimated as information from the court files showed that in some families much more sexual offending occurred than was reflected by the official documentation. Another disadvantage of the use of conviction data is the fact that the prevailing definitions of sexual offending have changed over time (i.e. marital rape was not defined as a crime in The Netherlands until 1991; brotheling is legal in The Netherlands since 2000). As a consequence the odds to be convicted for a sex crime might differ among the generations in our samples. Our findings should, thus, be interpreted with some caution since they might be influenced by the use of conviction data.

Another limitation of our study design is that we do not have information on the criminal history of all extended family members. The data from the CSDD only contained information about the nuclear family members, while in the Transfive study information about the family members of partners is missing. Consequently, the Transfive study does not contain any information about approximately half of the grandparents, uncles, aunts and cousins. Given how rare sex offending is, even in this high-risk sample, such data might have strengthened our findings. In addition, it would have been interesting to examine whether persons from families in which sex offenses occur mate with persons from similar families. Unfortunately, we could not test this with the datasets we used. For these reasons, it would be good if future studies replicate this study whilst including information on the offense history of all extended family members from both partners' sides.

Finally, given the rarity of sexual offending even in comparatively large datasets such as the ones used here, the absolute number of sex offenders remains low. Bijleveld and Hendriks (2007) showed that there is much heterogeneity in families in which juvenile sex offenders live, varying from hypersexual families that frequently expose children to pornography and sexual behavior to sexually repressed families in which no one talked about sex. This heterogeneity is

probably not reflected in our datasets because of the low number of sex offenders and the homogenous character of our samples (i.e. mainly Caucasian families living in a working-class inner-city area of South London; and predominantly ethnic Dutch Catholics). The generalizability of our findings is, therefore, limited, especially to cases of sexual offending that take place in families living under very specific circumstances, for example urban ghettos, or in families that adhere to particular traditional or cultural norms.

Despite these limitations, our study contributed to the existing literature on sex offenders in various ways. First of all, we used prospectively collected data to study the concentration of sex offenses within Dutch and British families, a topic which has to our knowledge never been studied before. Moreover, we examined the intergenerational transmission of the perpetration of sexual offenses, whereas earlier studies focused on the transmission of sexual victimization. Finally, for the Transfive dataset, we were able to distinguish between different types of sex offending.

A meta-analysis on evaluations of sex offender treatment showed that interventions aimed to reduce recidivism not only lead to less sexual recidivism but decrease levels of violent and general recidivism as well (Lösel & Schmucker, 2005). Based on our findings that families with a broader antisocial and violent tendency include more sex offenders, it might be expected that interventions aimed to reduce violent and general recidivism could also decrease the risk for the offender's family members for sex offending. In order to design effective interventions for at-risk families, it would be desirable if more knowledge becomes available about the causal mechanisms that underlie the transmission of sex offending between sexually offending and criminal and violent family members. In this study we were able to show that sex offenses are transmitted from such family members, but, at this time, leave it up to future studies to address the issue of possible underlying mechanisms (e.g. social learning mechanisms or genetic influences) in more detail.

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